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      (FILE 'HOME' ENTERED AT 10:43:05 ON 22 FEB 2005)

      FILE 'MEDLINE, CANCERLIT, BIOTECHDS, EMBASE, BIOSIS, CAPLUS' ENTERED AT
      10:43:37 ON 22 FEB 2005
L1        110750 S STROMAL
L2       3884678 S IMPLAN? OR POLYMER OR CHAMBER OR MATRIX OR CONTAINER OR DIFFU
L3        469641 S CYTOTOXIC OR HSV-TK OR THYMIDINE KINASE OR PRODRUG OR GANCICL
L4           199 S L3 AND L2 AND L1
L5            89 DUP REM L4 (110 DUPLICATES REMOVED)

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L5 ANSWER 79 OF 89 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED. on STN

AN 92215918 EMBASE

DN 1992215918

TI **Stromal** cells derived from spleen or bone marrow support the proliferation of rat natural killer cells in long-term culture.

AU Tjota A.; Rossi T.M.; Naughton B.A.

CS Hunter Coll. Sch. of Health Sciences, 425 East 25th Street,New York, NY 10010, United States

SO Proceedings of the Society for Experimental Biology and Medicine, (1992) 200/3 (431-441).
ISSN: 0037-9727 CODEN: PSEBAA

CY United States

DT Journal; Article

FS 026 Immunology, Serology and Transplantation
029 Clinical Biochemistry

LA English

SL English

AB Rat nylon wool nonadherent bone marrow cells were propagated for up to 75 days in co-culture with **stromal** cells derived from either spleen or bone marrow. Interleukin (IL) 1 enhanced the ability of spleen stroma to support the long-term culture of natural killer (NK) cells, ostensibly by inducing these support cells to synthesize other cytokines. Flow cytometry studies indicated that the nylon wool separation procedure enriched the concentrations of mature NK cells from 7.9% to 38.1% for splenocytes and from 3.8% to 19.5% for bone marrow cells. Analyses of the adherent zones of suspended nylon screen NK cell cultures revealed substantial numbers of large granular lymphocytes that expressed NK 323+/MOM/3F12/F2- phenotypes. The presence of both mature and immature cells of the NK lineage in this **matrix** was inferred by the presence of both IL-2 receptor (IL-2R) positive and IL-2R negative, and OX-8+ and OX-8- NK 323+ cells over the >4-month experimental period. Suspended nylon screen cultures displayed a greater potential for producing cytolytic cells than either co-cultures of bone marrow nonadherent cells on **stromal** monolayers or suspension cultures. The large granular lymphocytes produced in suspended nylon screen cultures could be transformed into active killers of YAC-1 targets by IL-2. In contrast to bone marrow nonadherent cells, more splenic nylon-wool-passed cells displayed a mature NK phenotype, but their proliferative potential and ability to be transformed into cytolytic cells by IL-2 decreased rapidly in culture. In the suspended nylon screen culture system, NK cells migrate from the underlying stroma in stages as they mature, retain their cytolytic potential, and manifest a capacity for self-renewal. Cultured cells were routinely dissociated into single cell suspensions via enzyme treatment and were reinoculated onto 'fresh' nylon screen/**stromal** cell templates after passage through nylon wool columns. These co-cultures continued to generate cytolytic cells in numbers greater than those of the initial inoculum.

L5 ANSWER 65 OF 89 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN
AN 1996-08198 BIOTECHDS
TI Three dimensional culture of liver cells;
liver cell culture in culture vessel for biologically active molecule production, and transformation for gene therapy
AU Naughton B A; Naughton G K
PA Advan.Tissue-Sci.
LO La Jolla, CA, USA.
PI US 5510254 23 Apr 1996
AI US 1994-241259 11 May 1994
PRAI US 1994-241259 11 May 1994
DT Patent
LA English
OS WPI: 1996-221250 [22]
AB A method for culturing liver cells in vitro comprises (a) inoculating liver parenchymal cells onto a living **stromal** tissue prepared in vitro, comprising **stromal** cells and connective tissue proteins naturally secreted by the **stromal** cells attached to and enveloping a framework of non-living biocompatible material formed into a three-dimensional structure having interstitial spaces bridged by the **stromal** cells, and (b) incubating the inoculated tissue in a nutrient medium so that the liver cells proliferate. The **stromal** cells are fibroblasts or a combination of fibroblasts and endothelial cells, pericytes, macrophages, monocytes, leukocytes, plasma cells, mast cells or adipocytes. The framework is a mesh of (non-) biodegradable material, and may be precoated with collagen. The cultures can be used as **implants**, for screening of **cytotoxic** agents or drugs, for production of biologically active molecules in culture vessels, for production of extracorporeal liver-assisted devices, etc. The cells can also be genetically transformed and used for gene therapy. (24pp)